AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Current Listing of Claims With Markings to Show Changes:

1-34 (Cancelled)

35. (Previously Presented) A method of treating a lipoprotein lipase (LPL)-responsive hyperlipidemia in a subject, wherein the hyperlipidemia is associated with LPL or ApoE deficiency, comprising administering to the subject an amount of an LPL S447X therapeutic effective to lower triglycerides and to raise HDL-C, wherein the LPL S447X therapeutic comprises an LPL S447X nucleic acid in a viral gene therapy vector encoding an LPL S447X protein.

36. (Cancelled)

37. (Previously Presented) The method of claim 35, wherein the hyperlipidemia is associated with complete LPL deficiency.

38. (Previously Presented) The method of claim 35, wherein the amino acid sequence of the LPL S447X protein comprises a contiguous segment having at least 90% sequence identity to SEQ ID NO:3 when optimally aligned, and wherein the LPL S447X protein lacks amino acids corresponding to amino acids 447 and 448 of SEQ ID NO:3 when optimally aligned.

39. (Previously Presented) The method of claim 38, wherein the LPL S447X protein has greater LPL activity than a wild type LPL of SEQ ID NO:3.

40. (Previously Presented) The method of claim 38, wherein the LPL S447X nucleic acid comprises a DNA coding sequence encoding an RNA having at least 90% sequence identity to nucleotides 256 through 1599 of SEQ ID NO:4.

41. (Cancelled)

42. (Previously Presented) The method of claim 38, wherein the contiguous segment has at least 95% sequence identity to SEQ ID NO:1.

43. (Previously Presented) The method of claim 35, wherein the gene therapy vector is an adenoviral vector or an adeno-associated viral vector.

44. (Previously Presented) The method of claim 37, wherein the gene therapy vector is an

adenoviral vector or an adeno-associated viral vector.

45. (Previously Presented) The method of claim 38, wherein the gene therapy vector is an adenoviral vector or an adeno-associated viral vector.

46. (Previously Presented) The method of claim 39, wherein the gene therapy vector is an adenoviral vector or an adeno-associated viral vector.

47. (Previously Presented) The method of claim 40, wherein the gene therapy vector is an adenoviral vector or an adeno-associated viral vector.

48. (Previously Presented) The method of claim 42, wherein the gene therapy vector is an adenoviral vector or an adeno-associated viral vector.

49. (Previously Presented) The method of claim 42, wherein the subject is a human.

50. (Previously Presented) The method of claim 48, wherein the subject is a human.

51. (Previously Presented) The method of claim 35, wherein the subject is a human.

52-57. (Cancelled)